D. Moncrieff Wright, writing in our *Journal* (vol. xxxiv, p. 236), says that in Assam he saw 'stags with horns fully grown in velvet and in process of shedding their velvet in April'. This would imply that the period of horn growth in velvet is between December and April (growth to maturity takes approximately 5 months, vide Bhadian, *loc. cit.*, and Dunbar Brander, *Wild Animals in Central India,* p. 200 (U.P. & C.P.)). The period when the horns are hard would be between May and November. Capt. Moncrieff Wright's statement is supported by Lydekker (Royal Natural History) who says that 'single stags are met with on the plains of Assam during March with antlers in velvet.' Blanford (Mammalia) says that 'at the end of March in Assam bucks are found in grass singly with horns for the most part partly grown in velvet'. Swamp deer stags, like many other deer, live singly during the time of horn growth, and assemble in herds after the horns have hardened; such assemblage being preliminary to the development of the rut. The evidence of these writers indicate that in Assam horn growth of many stags is completed in April and May, when according to Mr. Bhadian the rut takes place.

In Mr. Bhadian's view there is no linkage between horn growth and the development of the rut. This is not the case with Swamp Deer in the C.P. and the U.P. Dunbar Brander writing of Swamp Deer in these provinces (*Wild Animals in Central India,* p. 200) says that the horns begin to grow shortly before the commencement of the rains (June), the period of horn growth and development is between July and October. The stags congregate in November and the rut does not develop till December reaching its climax between mid-December and January.

We should be glad to have further evidence on the following points relative to Swamp Deer in Assam:—

(1) Time of horn shedding. It should be noted that the time when antlers are cast is not uniform for all stags. Adult stags shed their horns earlier than younger animals.

(2) Period of horn growth in velvet.

(3) Period during which the antlers are hard.

(4) Time when the majority of stags rut.

(5) Time when the majority of young are born.

Bombay Nat. Hist. Society. S. H. PRATER,
15*th April* 1945. *Curator.*

7.—CANINE TEETH IN CHITAL (*AXIS AXIS*).

With reference to Mr. Nolthenius's note on the canine teeth in chital stags (Vol. 45, No. 1, p. 83), I should like to say that after examining a number of chital and sambar for these 'tushes' I have only found them in a very rudimentary form and then only in older beasts.

In Europe it is possible to estimate the age of a stag both from the colour and size of these tushes. In young beasts they are pure white and small in size. A fourth year stag has the centre of the tush a pale golden brown. This patch of colour darkens and grows larger with age.

The expression most generally used in Germany and Austria for these 'tushes' is *Kranel*.

I have always understood that these teeth were all that is left of the canines.

P. O. Box 67,
Poona.
12th January 1945.

H. A. FOOKS,
Capt.

8.—SIZE OF CHITAL (*AXIS AXIS*) IN INDIA AND CEYLON.

I was most interested in Mr. Tutein Nolthenius's note on chital (Vol. 45, No. 1, p. 83). I myself have seen in S.-E. Ceylon as good chital heads and as large bodied stags as anything in North or South India, and secured a good 'movie' record of them. Nor have I noticed any difference in body size between chital in North or South India and have seen as good heads (upto 37″ actually measured) from the Wynaad and the U.P.

S.E.A.C.
13th January 1945.

H. G. ROSSEL,
Lt.-Col.,
12 *Madras Engineers.*

[Pocock's conclusions as regards *Axis* deer (Larger Deer of Brit. India, Vol. 44, p. 169) were based on skull measurements. Average measurements of the total length and the condylo-basal length suggest that chital from north of the Ganges have smaller skulls than those from Peninsular India; while measurements of two skulls from Ceylon, from their small size suggest a nearer approach to the smaller skulls of Trans-Gangetic animal. Further measurements of skulls (total length and condylo-basal length) of chital from S. India and Ceylon would help to verify the correctness or incorrectness of this conclusion.—Eds.]

9.—ON EXPERIMENTS IN ALBINISM WITH CHITAL (*AXIS AXIS*).

Whilst going through the pages of the *Journal*, I found an interesting note by His Highness the Maharawat of Partabgarh, Ram Singh Bahadur, on some experiments in albinism His Highness has been carrying on (Vol. 43, No. 3, Dec. 1942, p. 523). My previous experiments and work in this line suggest a possible explanation of the results obtained by His Highness of Partabgarh.

Having obtained an albino type of the chital stag (*Axis axis*), His Highness wished to fix such a type; for this purpose he crossed the albino male with a normal coated doe; the result was a normal coated female chital. This was again crossed with the original albino sire; the result was again a normal coated male, and on a subsequent occasion a normal coated doe (C). When C was once more crossed with the albino sire, the result was again a